

REMARKS

The Office Action of October 29, 2005 has been received and its contents carefully considered.

Claims 1 to 26 are all the claims pending in the application, prior to the present amendment.

The Examiner has not acknowledged applicants' claim for foreign priority, or receipt of the certified copies of the priority documents. Applicants request the Examiner to make such an acknowledgment.

Claims 5-26 have been objected to under 37 C.F.R. § 1.75(c) as being improper multiple dependent claims because a multiple dependent can not serve as basis for any other multiple dependent claim. The Examiner states that, therefore, claims 5-26 have not been further treated on the merits.

In response, applicants have amended the claims as set forth above so that all of the claims that are in application contain proper dependencies. In addition, applicants have added new claims 27 to 30.

Claims 1-4 have been rejected under 35 U.S.C. § 102(b) as anticipated by WO 02/22098 to Ishii et al or U.S. Patent No. 6,500,415 to Ishii et al.

Applicants submit that WO '098 and Ishii et al '415 do not disclose or render obvious the presently claimed invention and, accordingly, request withdrawal of this rejection.

The present invention as set forth in independent claim 1 is directed to a powder comprising silica-coated zinc oxide fine particles in which the surface of each particle is coated

with silica, wherein large particles of 5 μm or more account for 0.1 mass% or less and this amount is obtained by a dry-format classification.

In another embodiment of the present invention as set forth in independent claim 2, the present invention is directed to a powder comprising surface-hydrophobicized silica-coated zinc oxide fine particles in which the silica-coated zinc oxide fine particles whose surfaces have been coated with silica are further treated with a hydrophobicity-imparting agent, wherein large particles of 5 μm or more account for 0.1 mass% or less and this amount is obtained by a dry-format classification.

Thus, applicants have amended claims 1 and 2 to state that the number of large particles has been obtained by a dry-format classification. Support for this amendment can be found at page 19, lines 1 to 3 of the specification.

The Examiner asserts that WO '098 and Ishii et al '415 disclose silica-coated zinc oxide particles having a particle size from 0.01 to 0.2 mm. (Emphasis added). According to the Examiner, this indicates that the amount of particles over 5 mm would be less than 0.1 wt%. (Emphasis added).

The Examiner cites various passages of WO '098 and Ishii et al '415 in support of his position.

It appears to applicants that the Examiner intended to refer to a particle size of from 0.01 to 0.2 μm , and to an amount of particles over 5 μm . Thus, the units "mm" that the Examiner employed appear to be wrong.

The WO '098 document discloses, at page 29, a primary size of 0.01 to 0.2 μm , preferably from 0.01 to 0.12 μm .

Applicants could not find any corresponding disclosure in Ishii et al '415. Ishii et al '415 disclose at column 8, last two lines to column 9, line 1, a primary particle size of 5 to 200 nm, preferably from 5 to 120 nm.

With respect to Ishii et al '415, applicants assume the Examiner would argue that because it discloses primary particle sizes that are very small, that this would indicate that particles over 5 μm or more account for 0.1% or less.

Applicants are able to achieve particles in which large particles of 5 μm or more account for 0.1 mass% or less by employing a dry-format classification to eliminate large particles. Neither WO '098 nor Ishii et al '415 discloses a dry-format classification to eliminate large particles.

In WO '098 and Ishii et al '415, the produced silica-coated zinc oxide particles were reduced in size by grinding in a jet milling, which is described in Production Examples 3 and 4. (See page 46, lines 19-20 and page 47, lines 14-15 of W0 '098 and column 15, lines 26-28 and 49-50 of Ishii et al '415.)

In contrast, the silica-coated zinc oxide fine particles of the present invention are obtained through a dry-format classification.

Therefore, the particles of W0 '098 and Ishii et al '415 are different from the particles of the present invention.

As described on page 19, lines 6-15 of the present specification:

Intensive milling attained by use of a jet mill may be effective for reducing the level of aggregation of particles. However, such intensive milling may cause partial breakage of silica coating or create new surfaces (i.e., zinc oxide surfaces) as a result of milling of surface-treated products of large zinc oxide particles. (Emphasis added). These are not preferred because processability and weather resistance of organic polymer composition containing such intensive milled particles are deteriorated.

Thus, the particles of the present invention are superior to the particles of W0 '098 and Ishii et al '415 in their properties, such as the processability and weather resistance of an organic polymer composition containing the particles.

The object of the present invention is described on page 3, line 23 to page 4, line 1 of the present specification, as follows:

. . . provision of a powder containing finely divided, specific silica-coated zinc oxide particles containing a smaller number of large particles which ensure facilitated shaping of thin film, thin fiber, or similar products which are free from impaired weather resistance which would otherwise be attributable to photocatalytic action and which are endowed with sufficient UV shielding ability; organic polymer compositions containing such powder; and shaped products formed from the composition.

. . . provision of the powder, organic polymer compositions comprising such powder; and shaped products formed from the compositions, which are free from a bleed-out phenomenon, unlike an organic UV absorber, and have good durability against washing.

These objects are not attained or suggested from the teachings of W0 '098 and Ishii et al '415.

In view of the above, applicant submit that the cited documents do not disclose or suggest the presently claimed invention and, accordingly, request withdrawal of this rejection.

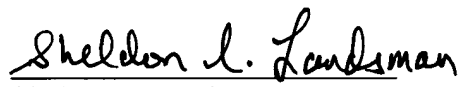
AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Patent Application No.: 10/516,710

Attorney Docket No.: Q70519

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


Sheldon I. Landsman
Registration No. 25,430

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: December 29, 2005